

Amended Claims (Showing Changes Made)

9. (Amended) A [high-density electronics package,] n article comprising:
a chip stack comprising a plurality of integrated circuit chips ("IC") that are disposed in spaced and parallel relation to one another, each said IC having two major surfaces, four sides, an active device area and a kerf surrounding said active device area, wherein:

at least a portion of said kerf along one of said sides of each IC is removed
defining a foreshortened side thereof;

said foreshortened side of said ICs are aligned;

a plurality of bumps are disposed along said foreshortened side between
opposing major surfaces of adjacent ICs;

each said bump is disposed partially in said active device area of said IC and
partially beyond an edge of said foreshortened side.

10. (Amended) The [high-density electronics package] article of claim 9 further
comprising a first plurality of bonding pads that are disposed on one of said opposing major
surfaces of said adjacent ICs, wherein said plurality of bumps are disposed on said plurality of
bonding pads.

11. (Amended) The [high-density electronics package] article of claim 10
wherein said bonding pads are electrically connected to electrical circuitry.

12. (Amended) The [high-density electronics package] article of claim 9 further
comprising adhesive that is disposed in a space between said opposing major surfaces of said
adjacent ICs.

13. (Amended) The [high-density electronics package] article of claim 12
wherein said adhesive is an epoxy.

14. (Amended) The [high-density electronics package] article of claim 9
wherein said chip stack defines a first level electronics package, and further comprising a second
level electronics package, wherein said second level electronics package is attached to said first
level electronics package at said bumps.

15. (Amended) The [high-density electronics package] article of claim 14 wherein said second level electronics package is a printed circuit board.

16. (Amended) An [high-density electronics package,] article comprising:
a plurality of integrated circuit ("IC") chips, each said IC chip having:
electrical leads extending to one side thereof;
bonding pads disposed at said one side, wherein said bonding pads are electrically connected to said electrical leads;
bumps disposed on said bonding pads, wherein an exposed portion of each of said bumps extends beyond said one side and beyond said bonding pads; wherein:
said plurality of IC chips are secured to one another at major surfaces thereof forming a chip stack;
said one side of each said IC chip is aligned with said one side of all other IC chips in said chip stack, said aligned sides defining an access plane;
said exposed portion of each of said bumps extends beyond said access plane.

17. (Amended) The [high-density electronics package] article of claim 16 wherein said bumps have an oblong shape.

18. (Amended) The [high-density electronics package] article of claim 16 further comprising a substrate, said substrate having a plurality of electrically-conductive pads, wherein said exposed portion of said bumps is attached to said pads.

19. (Amended) The [high-density electronics package] article of claim 18 wherein said substrate comprises a printed circuit board.

REMARKS

This paper is responsive to an Official Action that issued on July 22, 2002 in the above-referenced case. In that Action, the Office alleged that the application discloses two inventions and required that the case be restricted to one of those inventions. The inventions are identified by the Office as follows:

Invention I - defined by claims 1-8 - drawn to a method; and

Invention II - defined by claims 9-19 - drawn to a device.

The Office alleged that Invention I and Invention II are distinct from each other because the method, as claimed, can be used to make another device, citing MPEP §806.05(f). In particular, the Office suggests that “the method can be used to make devices [other] than high-density electronics packages.

As an initial matter, claims 9-19 are not limited to a “high-density electronics package.” That language appears in the *preamble* of claims 9-19. The Office does not consider language that is recited in the preamble, but that is not positively recited in the claims, to be a claim limitation. Consequently, it is inappropriate to consider it as such for the purpose of restriction practice. Simply put, it is immaterial whether or not the claimed method can be used to make devices other than “high-density electronics packages.” The relevant inquiry is whether or not the method can be used to make devices other than those that are recited in the claims.

To improve the form of the claims, claims 9-19 are hereby amended to delete the language “high-density electronics package” that appears in the preamble. The claims are now directed to an “article.”

Furthermore, the language of MPEP §806.05(f) states that “the inventions are distinct if it can be shown that ... the process as claimed can be practiced by another *materially* different apparatus.” (Emphasis added.) Also, according to MPEP §806.05(f), “The burden is on the examiner to provide *reasonable examples that recite material differences*.” (Emphasis added.)

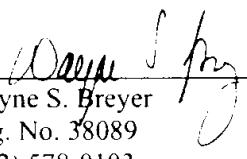
Even if the claims were limited to “high-density electronics packages,” which they are not, the “support” offered by the Examiner — that “the method can be used to make devices [other] than high-density electronics package” — does not meet the burden of providing “reasonable examples that recite material differences,” as imposed by MPEP §806.05(f). In fact, this “supporting” statement offers no examples at all, reasonable or otherwise.

Since the Office has not met its burden of providing "reasonable examples that recite material differences," a case for restriction has not been made. Therefore, applicant requests that the Office withdraw its requirement for restriction.

Applicant provisionally elects claims 9-19 for prosecution, should the Office find applicant's remarks to be unpersuasive.

Respectfully,

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